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Dawn et al.

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(54) **PREDICTOR GENERATION GENETIC ALGORITHM**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1113 days.

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(57) **ABSTRACT**

(52) **U.S. Cl.**
CPC **G06N 3/126** (2013.01); **G06N 5/025** (2013.01); **G06N 7/005** (2013.01)

A method of generating predictor rules using a genetic algorithm for predicting at least one target event associated with a given entity, the entity having a combination of an entity type and one or more attributes. The method comprises partitioning records data into a model generation set and a model testing set. A first generation of predictor rules is determined using the records in the model generation set, and subsequent generations are constructed by iteratively identifying a first subset of predictor rules based on a precision measure of each predictor rule and identifying a second subset of predictor rules based on a recall measure of each predictor rule and generating the subsequent generation by OR combining the predictor rules of the first subset and by AND combining the predictor rules of the second subset. Construction of the predictor rule population is terminated in response to a termination criteria being met.

(58) **Field of Classification Search**
CPC G06N 3/126; G06N 5/025; G06N 7/005
See application file for complete search history.

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20 Claims, 4 Drawing Sheets

